

CLAIMS

We claim:

1. A method for reducing the amount of nitric oxide produced by a cartilage associated cell, comprising contacting the cell with a soluble Interleukin-17 receptor (IL-17R).

2. The method according to claim 1, wherein the soluble IL-17R is selected from the group consisting of:

- (a) a protein comprising amino acids 1 through 322 of SEQ ID NO.: 2;
- (b) a protein comprising amino acids 1 through 320 of SEQ ID NO.: 4;
- (c) a protein having an amino acid sequence that is at least about 70% identical to the amino acid sequences of the proteins of (a) or (b), and that binds IL-17; and
- (d) fragments of the proteins of (a), (b), or (c), that bind IL-17.

3. A composition for regulation of nitric oxide levels, comprising a soluble IL-17 receptor and a pharmaceutically acceptable carrier or diluent.

4. The composition according to claim 3, wherein the soluble IL-17 receptor is selected from the group consisting of:

- (a) a protein comprising amino acids 1 through 322 of SEQ ID NO.: 2;
- (b) a protein comprising amino acids 1 through 320 of SEQ ID NO.: 4;
- (c) a protein having an amino acid sequence that is at least about 70% identical to the amino acid sequences of the proteins of (a) or (b), and that binds IL-17; and
- (d) fragments of the proteins of (a), (b), or (c), that bind IL-17.

5. The composition according to claim 3, further comprising an immunoregulatory molecule selected from the group consisting of a soluble Type I IL-1 receptor, a soluble Type II IL-1 receptor, an IL-1 receptor antagonist, a soluble TNF receptor, a fusion protein comprising an IL-1 receptor and a TNF receptor, and combinations thereof.

6. The composition according to claim 4, further comprising an immunoregulatory molecule selected from the group consisting of a soluble Type I IL-1 receptor, a soluble Type II IL-1 receptor, an IL-1 receptor antagonist, a soluble TNF receptor, a fusion protein comprising an IL-1 receptor and a TNF receptor, and combinations thereof.

7. The method according to claim 1, wherein the cell is simultaneously, sequentially or separately contacted with an immunoregulatory molecule selected from the group consisting of a soluble Type I IL-1 receptor, a soluble Type II IL-1 receptor, an IL-1

receptor antagonist, a soluble TNF receptor, a fusion protein comprising an IL-1 receptor and a TNF receptor, and combinations thereof.

8. The method according to claim 2, wherein the cell is simultaneously, sequentially or separately contacted with an immunoregulatory molecule selected from the group consisting of a soluble Type I IL-1 receptor, a soluble Type II IL-1 receptor, an IL-1 receptor antagonist, a soluble TNF receptor, a fusion protein comprising an IL-1 receptor and a TNF receptor, and combinations thereof.

9. A method of treating osteoarthritis in an individual, comprising administering to the individual an amount of soluble IL-17 receptor sufficient to reduce the level of nitric oxide produced by cartilage-associated cells, in a pharmaceutically acceptable carrier or diluent.

10. The method according to claim 9, wherein the soluble IL-17 receptor is administered simultaneously, sequentially or separately with an immunoregulatory molecule selected from the group consisting of a soluble Type I IL-1 receptor, a soluble Type II IL-1 receptor, an IL-1 receptor antagonist, a soluble TNF receptor, a fusion protein comprising an IL-1 receptor and a TNF receptor, and combinations thereof.

11. The method according to claim 9, wherein the soluble IL-17 receptor is selected from the group consisting of:

- (a) a protein comprising amino acids 1 through 322 of SEQ ID NO.: 2;
- (b) a protein comprising amino acids 1 through 320 of SEQ ID NO.: 4;
- (c) a protein having an amino acid sequence that is at least about 70% identical to the amino acid sequences of the proteins of (a) or (b), and that binds IL-17; and
- (d) fragments of the proteins of (a), (b), or (c), that bind IL-17.

12. The method according to claim 11, wherein the soluble IL-17 receptor is administered simultaneously, sequentially or separately with an immunoregulatory molecule selected from the group consisting of a soluble Type I IL-1 receptor, a soluble Type II IL-1 receptor, an IL-1 receptor antagonist, a soluble TNF receptor, a fusion protein comprising an IL-1 receptor and a TNF receptor, and combinations thereof.

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b'

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c4